

CHAPTER III
RULES, REGULATIONS AND STANDARDS FOR PLUGGING
ABANDONED WATER WELLS AND HOLES

As announced in the October 1985 issue of the LOUISIANA REGISTER, the Rules, Regulations and Standards, stated herein, were prepared by the Louisiana Department of Transportation and Development, Office of Public Works, hereafter referred to as the "Department", which is responsible for establishing rules, regulations and standards for plugging (sealing) of abandoned water wells and holes in Louisiana in accordance with R.S. 38:3091 through 38:3097.

The Rules, Regulations and Standards, stated herein, became effective on November 1, 1985 and preempted the Rules, Regulations, Standards and Methods for Plugging and Sealing of Abandoned Water Wells and Holes which had been in effect since September 1, 1975.

SECTION 3.1.0.0.

PURPOSE

The purpose of the Rules, Regulations and Standards for Plugging Abandoned Water Wells and Holes, stated herein, is to protect the ground water resources of the state from surface contamination, to prevent movement of water from one aquifer to another, to prevent the entrance of objectionable materials and wastes into aquifers via open or improperly sealed water wells and holes, and to minimize health and safety hazards associated with abandoned wells and holes.

SECTION 3.2.0.0.

GENERAL RULES AND REGULATIONS

In 1972, the Louisiana Legislature enacted State Act 535, which authorized the Department to promulgate reasonable rules and regulations relating to the plugging of abandoned water wells. Section A-6 of this Act (R.S. 38:3094) states that the Department shall:

"Require that all abandoned wells be reported and sealed with approved standards and to establish such standards."

Accordingly, the Rules, Regulations and Standards for Plugging Abandoned Water Wells and Holes stated herein were prepared in response to this legislative directive and were developed in coordination with other state agencies that are also concerned with the protection of the water resources of the state. The regulations and standards are intended to provide for restoration, as nearly as possible, of those subsurface and surface conditions that existed prior to drilling, boring, digging or augering activities; taking into account any changes that may have occurred as a result of "natural stresses".

These regulations and standards do not preempt but instead compliment the Rules and Regulations of the Louisiana Department of Natural Resources, Office of Conservation, related to plugging and abandonment of oil, gas, saltwater, saltwater disposal, waste disposal and injection wells, and the Rules and Regulations of the Department of Environmental Quality related to plugging of monitoring wells and geotechnical boreholes associated with waste activities. These regulations and standards are also important as guidelines for other state agencies when promulgating and enforcing their plugging regulations and standards.

SECTION 3.2.1.0.

Abandoned Water Wells and Holes That Shall be Plugged. The Rules, Regulations and Standards for Plugging Abandoned Water Wells and Holes shall apply to all abandoned water wells and holes including, but not limited to, public supply, domestic, irrigation/agriculture, industrial, power generation, rig-supply, observation, dewatering, monitoring, and heat pump supply, as well as abandoned pilot holes, test holes, geotechnical boreholes, and heat pump holes (closed loop system). Abandoned or improperly plugged wells or holes could act as conduits for transmitting contaminants from the surface down to the water-bearing sands and thereby contaminate the state's ground water resources. For glossary of terms, refer to Appendix I.

SECTION 3.2.2.0.

Exemptions. In accordance with R.S. 38:3097, the following wells and holes are exempted from the provisions of the Rules, Regulations and Standards stated herein: saline-water wells associated with secondary recovery operations, brine wells, oil and gas wells and holes, injection wells, geothermal and geopressured holes associated with production of oil and gas, and waste disposal wells.

Although the cited activities are not covered by R.S. 38:3094, they are not exempted or excepted by state law; therefore, persons, firms, corporations or others dealing with the cited activities should contact the appropriate regulating agencies for further information and should take any and all action necessary to protect the water resources of the state from contamination. The exclusion of these activities from these regulations does not in any way remove or establish legal liability for health and safety hazards, contamination, or pollution problems alleged to be caused by persons engaged in the activities cited in the first paragraph of this section.

SECTION 3.2.3.0.

Licensing Requirements. State Act 715 of 1980 (R.S. 38:3098), as amended by State Act 313 of 1984, requires that every person, firm or corporation desiring to engage in the business of plugging and abandoning wells or holes, excluding oil and gas wells, in the State of Louisiana shall obtain a license from the Department in accordance with the rules and regulations stated in Chapter V.

Accordingly, plugging of abandoned water wells and holes must be conducted by a qualified contractor who is duly licensed by the Department, with the following exceptions:

- A) Nothing in this chapter shall prevent a person who has not obtained a license, pursuant thereto, from plugging a domestic water well on his own or leased property which was intended for use only in a single family house which is his permanent residence, or was intended for use only for watering livestock on his farm; however, that person shall comply with all rules, regulations and standards for plugging such wells or holes, including the submission of plugging and abandonment forms.
- B) In addition to the domestic wells referred to in paragraph (A), a person may plug an abandoned well or hole on his own or leased property provided that the person has the required equipment and knowledge for properly plugging the well or hole, in accordance with the Rules, Regulations, and Standards stated herein, to the satisfaction of the Department, and provided that the person has obtained Departmental approval for plugging the well or hole himself, and provided that such approval is obtained prior to the beginning of the plugging operation. The owner shall complete and submit a Water

Well Plugging and Abandonment Form (DOTD-GW-2) to the Department within thirty (30) calendar days after completion of the plugging operation.

SECTION 3.2.4.0.

Variance Requests. Because of variable hydrologic conditions, differences in well construction, depth, and size, and the irregular occurrence of saltwater sands, the Rules, Regulations and Standards stated herein cannot cover every possible situation. For cases where compliance with the Rules, Regulations, and Standards stated herein is impractical, the owner, engineer, or the water well contractor may request a variance and/or clarification on methods specified. Such requests shall be addressed to the Department as follows:

Department of Transportation and Development
Attn: Chief, Water Resources Section
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245
Phone: (504) 379-1434

The request must be in writing, must demonstrate that compliance is impractical and must outline a satisfactory alternative. The Department may prescribe, in writing, alternate requirements that are equivalent to the regulations and standards stated herein relating to the protection of aquifer and prevention of ground water contamination.

SECTION 3.2.5.0.

Submission of Water Well Plugging and Abandonment Forms (DOTD-GW-2). The contractor who plugs an abandoned well or hole shall complete and submit to the Department the original copy of the Water Well Plugging and Abandonment Form (DOTD-GW-2) within thirty (30) calendar days after the completion of the work. The owner's copy shall be sent to the owner immediately after

completion of the work, and the contractor shall retain the contractor's copy for his files. A sample copy of Form DOTD-GW-2 and instructions for completing the form are included in Appendix IV. For reporting purposes only, the Department considers the work completed when the work is accepted by the owner or when the contractor has moved his equipment from the site; whichever comes first. Acceptance by the owner or removal of equipment from the site by the contractor does not imply, in any way, acceptance or approval by the State of Louisiana. The Department, after inspection of the site and records (refer to Section 3.2.9.0.), can require the owner and/or the contractor to do whatever additional work is necessary to properly plug and seal a hole or well in accordance with the standards stated herein. The expense for the additional work shall be borne by the owner and/or the contractor, as the case may be.

For the purpose of reporting the plugging of abandoned geotechnical boreholes, the drilling contractor shall certify annually at license renewal time, that all boreholes drilled by his firm have been plugged in accordance with requirements of Section 3.6.4.3.

SECTION 3.2.6.0.

Responsibility of The Owner. Unless specified otherwise in the Rules and Regulations stated herein, it shall be the responsibility of the owner to have an abandoned water well properly plugged and sealed in accordance with methods and standards stated in Section 3.6.0.0. within ninety (90) calendar days after abandonment. If the owner fails to plug an abandoned well within the 90-day time period, enforcement procedures, as outlined in Section 3.2.7.0., will be initiated by the Department.

SECTION 3.2.7.0.

Failure of The Owner to Plug an Abandoned Water Well.

- A) When the owner fails to plug an abandoned water well within the time period specified in Section 3.2.6.0., the Department, upon receiving information on the existence of such well, will order the owner to plug the well within thirty (30) calendar days after receipt of the order.
- B) If the owner fails to comply within the 30-day time period or does not offer, in writing, an acceptable alternative time interval for plugging the well, the owner will be considered in violation of R.S. 38:3094, paragraph (6) of subsection A, which permits a civil penalty of not more than One Thousand Dollars (\$1,000) a day for each day of violation and for each act of violation.

SECTION 3.2.8.0.

Responsibilities of the Contractor. The contractor who agrees to plug an abandoned well or hole for the owner shall be fully responsible for plugging the well or hole in accordance with the Rules, Regulations and Standards stated herein. He is also responsible for completing and submitting a plugging and abandonment form (DOTD-GW-2) to the Department within thirty (30) calendar days after completion of the plugging operation. The contractor shall also be responsible for informing the owner of the necessity of plugging and sealing any other water well or hole on the property that may have been previously abandoned or which may be abandoned in the future.

SECTION 3.2.9.0.

Site Inspection by the Department Representatives. The Department may order, at any time, that the site of an abandoned water well or hole be inspected by Department representatives to determine whether the work has been satisfactorily completed in accordance with the standards stated herein, and as stated on the Water Well Plugging and Abandonment Form (DOTD-GW-2). The owner and/or the contractor shall make all records available to the representatives of the Department and the owner shall allow representatives to enter the property and visit the site(s).

SECTION 3.3.0.0.

AVAILABILITY OF WATER WELL DATA

The drilling and construction records for a water well or test hole may be obtained from the owner, from the water well contractor, and/or from one of the following governmental agencies:

LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
Water Resources Section
P.O. Box 94245
Baton Rouge, Louisiana 70804-9245

or

U.S. GEOLOGICAL SURVEY
Water Resources Division
P.O. Box 66492
Baton Rouge, Louisiana 70896

Reports and/or information on hydrology, geology, the occurrence of saline water-bearing and fresh water-bearing sands and quality of water may be

obtained from the above-named governmental agencies and/or the following:

LOUISIANA DEPARTMENT OF NATURAL RESOURCES
Office of Conservation
P.O. Box 44275
Baton Rouge, Louisiana 70804

or

LOUISIANA GEOLOGICAL SURVEY
P.O. Box G
Baton Rouge, Louisiana 70803

Information on monitoring wells may be obtained from the owner, the water well contractor, the engineer, the Department of Transportation and Development, as listed above, and/or from the following agency:

LOUISIANA DEPARTMENT OF ENVIRONMENTAL QUALITY
Solid and Hazardous Waste Division
P.O. Box 44066
Baton Rouge, Louisiana 70804

SECTION 3.4.0.0.

REGULATIONS FOR DETERMINING STATUS OF WELLS OR HOLES AND FOR DETERMINING PLUGGING RESPONSIBILITY

Following are the regulations for determining the status of a drilled, bored, cored, augered or driven water well or hole and for determining the party responsible for plugging abandoned wells and holes.

SECTION 3.4.1.0.

Active Status. A well is considered to be active if it is an operating well used to supply water.

SECTION 3.4.2.0.

Standby Status. A well is considered to be standby if it is used in emergencies or occasionally used to supply water.

SECTION 3.4.3.0.

Inactive Status. A well is considered to be inactive if it is not presently operating but is maintained in such a way that it can be put back in operation, with a minimum of effort, to supply water. Before a well can be put in inactive status, the owner shall present evidence to the Department as to the condition of the well and as to his intentions to use the well in the future, as well as obtaining the Department's written approval. As evidence of intentions, the owner shall be responsible for properly maintaining the well in such a way that:

- The well and the annular space between the hole and casing shall have no defects that will permit the seepage of surface water into the well,
- The well is clearly marked and is not a safety hazard,
- The well is adequately capped in such a manner as to prevent easy entry by other than the owner,
- The area surrounding the well is kept clear of waste and debris,
- If the pump and/or motor have been removed for repair, replacement, etc., the well is adequately capped to prevent injury to people and to prevent the entrance of any contaminant or other objectionable material,
- The well is not used for disposal or injection of trash, garbage, sewage, waste water and/or storm runoff, and
- The well is easily accessible for routine maintenance and periodic inspection.

SECTION 3.4.4.0.

Abandoned Wells. A well is considered to be abandoned if its use has been permanently discontinued; its pumping equipment has been permanently removed; the well is in such a state of disrepair that it cannot be used to supply water and/or has the potential for transmitting surface contaminants into an aquifer; the well poses potential health or safety hazards, or the

well is in such a condition that cannot be placed in the active, standby or inactive status. The owner of an abandoned well shall be responsible for plugging such a well in accordance with Methods and Standards, stated in Section 3.6.0.0., within ninety (90) calendar days from the initial date of abandonment. If the owner fails to plug an abandoned well within the 90-day time period, enforcement procedures, as outlined in Section 3.2.7.0., will be initiated by the Department.

SECTION 3.4.4.1.

Abandoned Rig-Supply Water Wells. A water well drilled at an oil or gas drilling site to supply water for drilling activities shall be considered an abandoned well immediately after the termination of the oil or gas drilling operations and removal of the rig from the site. The company in charge of the drilling of the oil or gas well (lessee) shall be responsible for plugging the abandoned water well, in accordance with Section 3.6.0.0., within thirty (30) calendar days after the termination of oil or gas drilling operations and removal of the rig from the site.

If the ownership of the water well is to be conveyed to the landowner in lieu of plugging and abandoning the well, the well must conform to the requirements for active or inactive status. The ownership transfer must be made through a legal document advising the landowner of his responsibilities and obligations to properly maintain the well, including the proper plugging of the well when it is abandoned and no longer needed for water production activities. The company (lessee) shall provide the Department with a copy of the transfer document within thirty (30) calendar days after the transfer of the ownership. Upon receiving the document, the Department will send a letter to the new owner requesting well use information and advising him/her of the

appropriate regulations. The owner is required to respond within thirty (30) calendar days, stating intended use and requesting an appropriate status, as outlined in Sections 3.4.1.0. and 3.4.3.0.

SECTION 3.4.5.0.

Observation Wells. A well is considered to be an observation well if it is used by the owner, by governmental agencies, or by an appropriate engineering or research organization to obtain information on the water resources of an area. Observation wells shall be covered with an appropriate cap or cover to prevent unauthorized use or entry and to prevent entry of contaminants. It shall be the responsibility of the owner, organization or agency making the observations to prevent entry of any foreign materials or water into observation wells and to keep the surrounding area clear of waste, water, debris and other materials.

A WELL SHALL NOT BE USED FOR ANY INJECTION OR RECHARGE STUDIES UNTIL A PERMIT IS OBTAINED IN ACCORDANCE WITH EXISTING ORDERS, RULES AND REGULATIONS OF THE DEPARTMENT OF NATURAL RESOURCES, OFFICE OF CONSERVATION.

An inactive water well may be used as an observation well; however, when it is no longer needed for observation purposes and the owner does not intend to convert it to an active status, the well shall be considered abandoned. The owner shall be responsible for plugging the abandoned well in accordance with Methods and Standards, stated in Section 3.6.0.0., within ninety (90) calendar days after abandonment, unless agreement with the agency or organization which used the well for observation clearly delegates the plugging responsibility to the agency or organization.

A well constructed solely for observation purposes by an owner, a governmental agency, or an engineering or research organization, must be converted to an active, inactive or standby status when no longer needed for

observation purposes, otherwise it shall be considered abandoned. It shall be the responsibility of the owner, agency or organization who installed the well to plug the abandoned well in accordance with Methods and Standards, stated in Section 3.6.0.0., within ninety (90) calendar days after abandonment.

SECTION 3.4.6.0.

Abandoned Pilot Holes and Test Holes. A pilot hole, drilled with the intent to install casing and produce water, shall be considered an abandoned hole immediately after the termination of the drilling operations if the hole is not cased and/or a well is not developed or constructed. It shall be the water-well contractor's responsibility to plug the abandoned hole, in accordance with Section 3.6.4.1., within thirty (30) calendar days after the termination of drilling operations.

A test hole, drilled to obtain geologic, hydrologic and water-quality data shall be considered an abandoned hole immediately after the completion of all testing operations. The agency or the contractor in charge of the exploratory work is responsible for plugging the abandoned hole in accordance with Section 3.6.4.1., within thirty (30) calendar days after the termination of drilling operations.

SECTION 3.4.7.0.

Abandoned Geotechnical Boreholes. A hole, drilled, bored, cored or augered to obtain soil samples to be analyzed for chemical and/or physical properties shall be considered abandoned immediately after the completion of the drilling and sampling operations. It shall be the drilling contractor's responsibility to plug the abandoned hole in accordance with Methods and Standards stated in Section 3.6.4.3. within thirty (30) calendar days after the termination of drilling and sampling operations.

SECTION 3.4.8.0.

Abandoned Heat Pump Holes (Closed Loop System). A hole drilled to install piping for an earth-coupled water source heat pump system shall be considered an abandoned hole if the piping is not installed and/or the hole is not plugged by the drilling contractor in accordance with Methods and Standards, stated in Section 3.6.4.4., within thirty (30) calendar days after completion of drilling operations. It shall be the drilling contractor's responsibility to plug the abandoned hole in accordance with Methods and Standards, stated in Section 3.6.4.4., within thirty (30) calendar days after the hole is considered abandoned.

SECTION 3.5.0.0.

PLUGGING AND FILLER MATERIALS

SECTION 3.5.1.0.

Plugging Material. It is recognized that no material is completely impervious; however, experience and tests have shown that cement-bentonite slurry has a low permeability, good sealing properties, and a low shrinkage factor, so as to be preferred for use when plugging an abandoned water well or hole. Cement-bentonite slurry is a mixture of cement, bentonite, and water, consisting of not more than eight (8) percent bentonite by dry weight of the cement and a maximum of ten (10) gallons of water per sack (94 pounds) of cement. Additives, in the approved and proper ratio, may be added to the slurry, if required. If the slurry is to be prepared in the field, it is recommended that the bentonite be added after cement and water are thoroughly mixed.

Neat cement, which is a mixture of cement and water, consisting of not more than five (5) gallons of water per sack (94 pounds) of cement, may be used as plugging material in lieu of cement-bentonite slurry.

When permitted by the Methods and Standards stated in Section 3.6.0.0., heavy drilling mud or bentonite slurry, weighing not less than nine (9) pounds per gallon, may be used as plugging material. The plugging material shall be free of foreign and organic additives.

SECTION 3.5.2.0.

Filler Material. When permitted by the Methods and Standards stated in Section 3.6.0.0., heavy drilling mud or bentonite slurry, weighing not less than nine (9) pounds per gallon, coarse ground bentonite or clean sand may be used as filler material. The filler material shall be free of foreign and organic additives.

SECTION 3.5.3.0.

Calculations to Verify Adequacy of Plugging Materials. To assure an abandoned water well or hole is plugged and sealed properly and that there has been no "jamming" or "bridging" of the material, verification calculations and measurements shall be made by the contractor to determine whether the volume of the material placed in the well or hole at least equals the volume of the casing or hole plugged and/or filled. When bridge plugs are used, sufficient time shall be allowed for the material to set. Any measurements and calculations made in setting and verifying the location of the plug shall be made available to the Department upon request. The Department shall be solely responsible for determining whether a well or hole is satisfactorily plugged or sealed.

SECTION 3.6.0.0.

METHODS AND STANDARDS FOR PLUGGING ABANDONED WATER WELLS AND HOLES

The following Methods and Standards shall be used for the plugging of abandoned water wells and holes. If there is a need for variance from these regulations and/or clarification is required, Departmental approval shall be obtained in writing, before the plugging operation is begun. For variance requests, refer to Section 3.2.4.0.

SECTION 3.6.1.0.

Methods and Standards for Plugging Abandoned Water Wells. The following methods and standards shall apply to all abandoned water wells, regardless of use or type.

SECTION 3.6.1.1.

Removal of Obstructions From the Well. Before the plugging operation is begun, the drilling and construction records for the well should be obtained and studied (see Section 3.3.0.0.). An investigation of the well shall be made to determine if there is any obstruction in the well that would interfere with the plugging operation. Any obstruction in the well shall be removed, using an acceptable method, before initiating the plugging operation.

SECTION 3.6.1.2.

Cutting Off the Top of the Casing. In areas subject to subsidence and/or farming, the top of the casing shall be cut off a minimum of three (3) feet below the surface of the ground before plugging operation begins. After filling the well with cement-bentonite slurry, the excavation above the top of the cement plug shall be filled with compacted soil to minimize future hazards

to farming equipment, etc. In other areas, the top of the casing shall be cut off at or below the ground surface. Under no circumstances shall the top of the casing protrude above the surface of ground.

SECTION 3.6.1.3.

Plugging Material for the Screen. The screen or the area opposite the production aquifer (as in open hole construction) may be filled with filler materials specified in Section 3.5.2.0. in lieu of cement-bentonite slurry.

SECTION 3.6.1.4

Plugging Method. The entire well shall be plugged with cement-bentonite slurry from bottom of the well up to the ground surface using the pump-down method, preferably in one continuous operation. Placement of plugging material by pouring or dropping through the water shall not be permitted.

SECTION 3.6.1.5.

Annular Space. If the annular space of the abandoned well is not already sealed, the plugging material shall be brought up to the surface and allowed to spill over the top of the casing and into the annulus, sealing the annular space between the casing and the borehole. If the annular space is already sealed, the plugging material shall be brought up to the ground surface, unless specified otherwise.

SECTION 3.6.1.6.

Temporary Shut Down. When plugging of an abandoned water well or hole is temporarily suspended, such as overnight shut down or awaiting material, the well or hole shall be covered and the immediate area conspicuously marked to protect and warn the public. The cover shall be sufficiently strong and

anchored to prevent easy or unintentional entry. The well or hole shall be sealed to prevent the seepage of surface water and foreign material into the well or hole.

SECTION 3.6.1.7.

Areas of Confirmed Contamination. In areas of confirmed ground water or soil contamination, the entire well shall be plugged with cement-bentonite slurry. The annular space of the well, if not already sealed, shall be sealed by perforating or ripping the casing and forcing cement-bentonite slurry under pressure into the annular space and surrounding formation to prevent the entry of contaminated fluids into an aquifer and to prevent the movement of water from one aquifer to another.

SECTION 3.6.1.8.

Areas of Potential Contamination. In areas of potential ground water or soil contamination, the entire well shall be plugged with cement-bentonite slurry. It is recommended that the annular space of the well, if not already sealed, be perforated or ripped and cement-bentonite slurry forced under pressure into the annular space and surrounding formation to safeguard against any possible entry of contaminated fluids into an aquifer and to prevent the movement of water from one aquifer to another.

SECTION 3.6.1.9.

Plugging of Abandoned Water Well From Which Some or All of the Casing Has Been Removed.

- A) If the casing remaining is in the upper part of the well, the well shall be sounded to determine the amount, if any, of "cave in". The part of the hole filled with "cave in" material shall be reamed or

drilled out to the original depth of the well and then the entire hole shall be plugged with cement-bentonite slurry from the bottom, up to the ground surface, using the pump down method.

- B) If the casing (including the screen) remaining is in the lower part of the well, the well and hole shall be completely filled with cement-bentonite slurry from the bottom, up to the ground surface, using the pump-down method.
- C) If all the casing and screen is removed, the hole for the entire original depth of the well shall be plugged with cement-bentonite slurry from the bottom, up to the ground surface, using the pump-down method.

SECTION 3.6.2.0.

Plugging of Abandoned Monitoring Wells. The entire well shall be plugged with cement-bentonite slurry from bottom of the well, up to the ground surface, using the pump-down method.

NOTE: PLUGGING OF ABANDONED MONITORING WELLS ASSOCIATED WITH FACILITIES REGULATED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) REQUIRE APPROVAL FROM THAT DEPARTMENT PRIOR TO ACTUAL PLUGGING.

SECTION 3.6.3.0.

Plugging of Abandoned Dug or Augered Wells. Domestic dug or augered wells shall be plugged from bottom of the well up to the ground surface with cement-bentonite slurry or with local fill material such as silt, sand, clay, native soil, or a mixture thereof. If local fill material is used, it should be allowed to settle, and then permanently capped with cement or compacted clay.

SECTION 3.6.4.0.

Plugging of Abandoned Holes. If the hole penetrates an aquifer containing saline water, the entire hole shall be plugged with cement-bentonite slurry from bottom of the hole, up to the ground surface using the pump-down method; otherwise, the hole shall be plugged in accordance with the following sections.

SECTION 3.6.4.1.

Plugging of Abandoned Pilot Holes.

- A) The entire hole shall be plugged with cement-bentonite slurry from bottom of the hole, up to the ground surface, using the pump-down method.

NOTE: If an aquifer (see Glossary) is not penetrated, the hole shall be plugged with either cement-bentonite slurry or bentonite slurry from bottom of the hole, up to a depth of 25 feet below the ground surface and then the upper 25 feet of the hole shall be plugged with cement-bentonite slurry, using the pump-down method.

SECTION 3.6.4.2.

Plugging of Abandoned Test Holes. An abandoned test hole shall be plugged with cement-bentonite slurry from bottom of the hole, up to the ground surface, using the pump-down method. If the casing cannot be removed, in addition to plugging the entire casing with cement-bentonite slurry, the annular space must also be cemented as per requirements of Section 2.6.0.0. or as approved by the Department.

SECTION 3.6.4.3.

Plugging of Abandoned Geotechnical Boreholes.

- A) The entire hole shall be plugged with cement-bentonite slurry from bottom of the hole, up to the ground surface, using the pump-down method, or
- B) The hole shall be plugged with bentonite slurry from bottom of the hole, up to a depth of 25 feet below the ground surface and then the upper 25 feet of the hole shall be plugged with cement-bentonite slurry, using the pump-down method.

For boreholes of 25 feet or less, drill cuttings from the original hole may be used to plug the hole in lieu of cement-bentonite slurry, provided that an aquifer is not penetrated and provided that a concrete cylinder is pushed into the hole to form a permanent seal at the ground surface.

NOTE: PLUGGING OF GEOTECHNICAL BOREHOLES ASSOCIATED WITH FACILITIES REGULATED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY (DEQ) REQUIRE APPROVAL FROM THAT DEPARTMENT PRIOR TO ACTUAL PLUGGING.

SECTION 3.6.4.4.

Plugging of Heat Pump Holes (Closed Loop System).

- A) The entire hole shall be plugged with cement-bentonite slurry from bottom of the hole, up to the bottom of the horizontal trench, using the pump-down method, or
- B) The hole shall be plugged with bentonite slurry from bottom of the hole, up to a depth of 25 feet below the bottom of the horizontal trench and then the upper 25 feet of the hole shall be plugged with cement-bentonite slurry, using the pump-down method.

SECTION 3.7.0.0.

ENFORCEMENT ACTIONS

Provisions addressing enforcement of this Chapter appear in Louisiana Revised Statute 38:3096, as follows:

- A) Whoever knowingly and willingly violates a provision of this chapter, or a rule, regulation or order of the director or a board hereunder, shall be subject to a civil penalty of not more than One Thousand Dollars a day for each day of violation and for each act of violation if a penalty for the violation is not otherwise provided in this chapter.
 - (1) The place of suit to recover this penalty shall be selected by the director or board, as may be appropriate, in the district court of the parish in which any one of the defendants resides, or in the district court of the parish where the violation took place.
 - (2) Suit shall be at the direction of the director or board as may be appropriate and shall be instituted and conducted in his or its name by the Attorney General or by the District Attorney of the district under the direction of the Attorney General.
- B) Whoever knowingly and willfully aids or abets a person in the violation of a provision of this chapter, or in any rule, regulation or order made hereunder shall be subject to the same penalties provided herein for the principal violator.

SECTION 3.7.1.0.

Falsification of Documents. Falsification of documents to evade regulations, as well as penalties for said falsifications, appears in Louisiana Revised Statute 38:3095 as follows:

A) No person shall, for the purpose of evading this chapter or any rule, regulation or order made thereunder:

- (1) Make, or cause to be made, any false entry or statement of fact in any report required to be made by this chapter, or by any rule, regulation or order made hereunder; or
- (2) Make, or cause to be made, any false entry in an account, record or memorandum kept by any person in connection with the provisions of this chapter or of any rule, regulations or order made thereunder; or
- (3) Remove out of the jurisdiction of the state or destroy or mutilate, alter, or by any other means, falsify any book, record, or of the paper pertaining to the matters regulated by this chapter, or by any rule, regulation or order made thereunder.

B) Whoever violates this section shall be fined not more than Five Thousand Dollars or imprisoned not more than six months or both.

The penalty provision for falsification of documents required under the provisions of this chapter are therefore criminal in nature and will be enforced through the district attorney having jurisdiction where said violation occurs. It should also be noted that utilization of the United States Mail in the falsification of documents constitutes a violation of Title 18 of the United States Code (Mail Fraud), and such violations will be referred to the appropriate United States Attorney.

SECTION 3.7.2.0.

Appeals. An alleged violator may appeal any order of the Department by requesting a hearing. The hearing request must be made to the Department, in writing, within thirty (30) calendar days of the original order and must be sent by "Certified Mail -- Return Receipt Requested". After receiving the request, the Department will arrange a hearing to determine what other remedial action will serve to effect compliance with the rules and regulations.